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GRIDLINES

Sharing knowledge, experiences, and innovations in public-private partnerships in infrastructure

India leads developing nations in private sector investment

But the region needs more investment to meet demands

Clive Harris

India has had the most success attracting more private investment in infrastructure in 2006 than any other developing country. Long-standing policies in most other South Asian countries are beginning to bear fruit as well. Nevertheless, delivering the infrastructure services needed to sustain and accelerate growth in South Asia remains a major challenge. Estimates suggest that closing the gap in service provision and meeting future needs will require infrastructure investment in the range of 7–8 percent of GDP a year. The private sector can do more to help close the region's infrastructure service deficit. But first the region's governments will need to close the infrastructure policy deficit, manifested in many sectors in distorted pricing, poor governance and accountability, and weak financial and operational performance.

South Asia's impressive economic growth, averaging more than 6 percent a year over the past decade, has occurred not because of the quality of its infrastructure but despite it. World Bank investment climate surveys routinely show that South Asian businesses perceive infrastructure, particularly power and transport, as a major constraint. A larger share of firms rely on generators in South Asia than in China and Southeast Asia. No South Asian city can supply water 24/7 to its residents. And businesses in South Asia hold larger stocks of inventory on average than do those in Brazil or China, a reflection of the poor state of the region's transport network.[1]

The problems of poor infrastructure have long been recognized in the region. In the mid-1990s governments started to open infrastructure sectors to private investment and operation to improve services. Incremental reforms have borne fruit over time, however, and private participation has grown in recent years.

Recent trends in private participation

South Asia has seen a recent surge in investment commitments to infrastructure projects with private participation. Indeed, of total commitments in 1990–2006, almost half came in the last three years of the period (figure 1).

Moreover, South Asia is receiving a greater share of the investment commitments going to all developing countries. While it attracted only 5 percent of the total in 1995–2000, its share grew to 13 percent in 2001–06 (table 1). In 2006 its share was 19 percent.

Telecoms driving much of the growth

Telecommunications accounted for 64 percent of investment commitments to infrastructure projects with private participation in South Asia in 2001–06, a big increase over its 39 percent share in 1996–2000 (table 2). This large and growing role of telecommunications is much like the overall trend for developing countries. But the trend in South Asia is somewhat more extreme.

While India has seen the most dramatic growth in private investment in telecommunications, all countries in South Asia have benefited. Afghanistan has received around US$700 million in foreign direct investment in telecommunications

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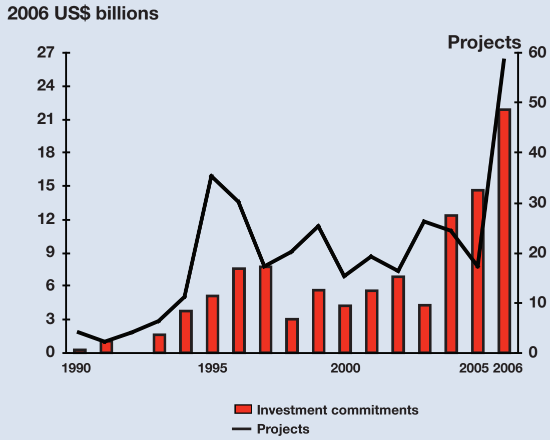
FIGURE 1
South Asia has seen a big increase in private participation in infrastructure



Source: World Bank and PPIAF, PPI Project Database.

since 2003. Today more than 2 million people in the country have access to phone service, compared with only 35,000 at the end of 2002.

Transport increasingly important

Transport has also become an important sector, attracting 18 percent of investment commitments in 2001–06 and 34 percent in 2006 (figure 2). The main driver has been India's growing program of public-private partnerships in transport, which reached financial closure on more than 40 projects in 2006 alone.

A large share of the transport projects in India have been public-private partnerships to expand the national highway system. Most of these are real-toll contracts, combining a long-term concession for an existing stretch of highway with a requirement to expand capacity to four lanes or more and, in some cases, a government subsidy. Some long-term road capacity contracts, known as annuity contracts, have also been used. Both these contractual models have proved attractive to the private sector and to financiers.

Activity has also been on the rise outside of roads. In 2006 the Indian government concessioned the Delhi and Mumbai airports, and it is now developing a private investment program in the rail sector. As a result of the surge in 2006, investment commitments to transport projects in India were roughly equal to those in telecommunications.

Energy and water lagging

The region has had less success in attracting investment in the energy and water sectors. While investment commitments in energy accounted for 17 percent of the total in 2001–06, they have been falling recently despite the rapidly growing energy needs. There has been no significant investment in the water sector. This record reflects the political economy challenges of reforming these sectors, which have weak governance, high and poorly allocated subsidies, and distorted pricing.

The region did see substantial investment in power generation in the 1990s, with a wave of investment in India and Pakistan and some notable procurements of independent power producers (IPPs) in Bangladesh. But the power sector's continued financial weakness in most countries and the poor governance, including in procurement of IPPs, have stymied further investments. All countries of the region are making renewed efforts to ramp up private investment in generation, with India pursuing a series of "ultra mega" (8,000-megawatt) generation projects.

Both India and Pakistan have pursued private participation in power distribution. In India power distribution has been privatized in Delhi and the state of Orissa, and some states, such as Maharashtra, are developing "franchise" models akin

Private investment is up—but more will be needed

TABLE 1
Investment commitments to infrastructure projects with private participation in developing countries by region, 1990–2006
(percentage of total)

Period	East Asia & Pacific	Eastern Europe & Central Asia	Latin America & Caribbean	Middle East & North Africa	South Asia	Sub-Saharan Africa	Total
1990–95	34	8	50	2	5	1	100
1996–2000	23	16	49	3	5	3	100
2001–06	19	25	28	7	13	8	100
1990–2006	24	18	41	5	8	4	100

Source: World Bank and PPIAF, PPI Project Database.

TABLE 2

Sector distribution of investment commitments to infrastructure projects with private participation in South Asia and the rest of the developing world, 1990–2006

Region and period	Energy	Telecoms	Transport	Water and sewerage
South Asia				
1990–95	77	18	5	0
1996–2000	53	39	8	0
2001–06	17	64	18	0
Rest of developing world				
1990–95	33	39	22	6
1996-2000	33	45	16	7
2001–06	24	57	15	3

Source: World Bank and PPIAF, PPI Project Database.

Closing the policy deficit will be key to expanding private investment

to lease contracts to bring in the private sector. Pakistan privatized distribution in Karachi. But the results of these initiatives have been mixed, reflecting the difficulties in tackling long-standing power theft in the sector.

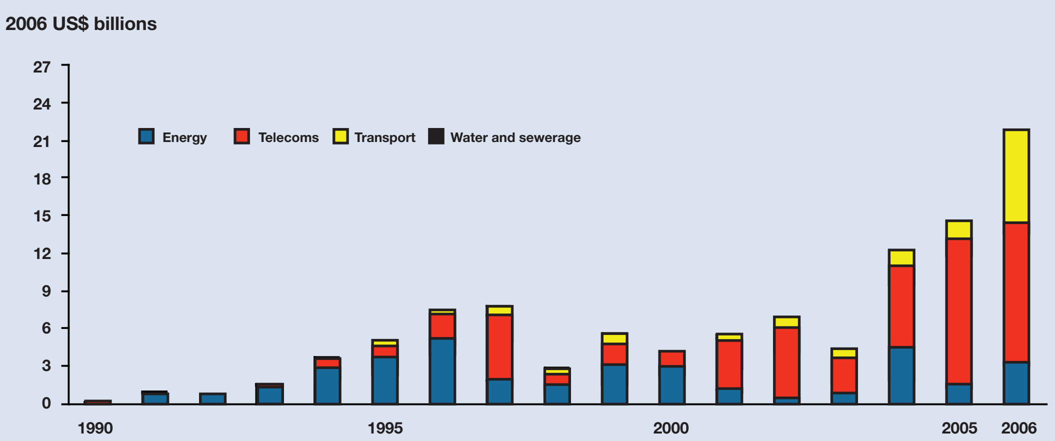
While there has been less progress in the water sector, some initiatives are going forward. In India the state government of Karnataka, working through a management contractor, is piloting a scheme to improve water supply in the cities of Belgaum, Gulbaraga, and Hubli-Dharwad. Some 25,000 households that before were receiving water only every three to seven days now have 24/7 water supply. The state government plans to expand this approach to the entire water supply system in each of these cities, covering 2 million people. In Delhi, by contrast, an attempt to introduce management contracts in just a couple of zones of the city's water supply met with major opposition from consumers.

India, the leading destination

India has attracted most of the investment commitments to infrastructure projects with private participation in the region. This is not surprising, as India is by far the region's largest economy. But it has also made the broadest and most sustained efforts to attract investment. Thanks to the success of its reforms in transport and telecommunications, India attracted more investment commitments to infrastructure projects with private participation in 2006 than any other developing country. Indeed, commitments in India were nearly twice those in its nearest rival, Brazil, and well ahead of those in China (figure 3).

FIGURE 2

Transport has become a key sector, 1990–2006



Source: Correa and others 2006.
Note: RGI-83 is a summary index measuring 83 attributes of regulatory governance; RGI-28 measures a subset reflecting actual practice. For the full names of the agencies, see Correa and others (2006).

TABLE 3

Infrastructure investment needed to meet 7.5 percent annual economic growth in South Asia, 2006–10
(percentage of GDP)

	Electricity generation capacity	Telephone mainlines and mobiles	Paved roads	Rail routes	Improved water	Improved sanitation	Total
New investment	1.8	0.7	2.0	0.1	0.3	0.4	5.4
Capital replacement	0.7	0.4	0.5	0.1	0.3	0.3	2.2
Total	2.5	1.1	2.5	0.2	0.6	0.7	7.6

Source: Chatterton and Puerto 2006.

Note: Underlying data are in 2004 U.S dollars. Figures may not sum to totals because of rounding.

The infrastructure policy deficit

Given the deficient stocks of infrastructure in South Asia, substantial investment in the sector will be needed to sustain the region's rapid economic growth. Estimates from a World Bank study suggest that annual GDP growth of 7.5 percent would lead to annual investment needs of about 5 percent of GDP to meet the increased demand for infrastructure services along with another 2 percent of GDP for capital replacement (table 3).

Raising investment to this level will be a big challenge: annual investment commitments to infrastructure projects with private participation averaged only around 0.9 percent of regional GDP in 2001–06. The key will be to increase investment in sectors outside of telecommunications—in energy, transport, and water, where investment commitments averaged only around 0.4 percent of regional GDP in 2001–06.

South Asia's infrastructure service deficit stems both from too few new investments and from lack of proper maintenance of existing assets. The region will be unable to bridge this deficit as long as its "infrastructure policy deficit" remains, manifested in distorted pricing, poor governance and accountability, and weak financial and operational performance. The policy deficit has had the biggest impact in the power and water sectors, where a lack of creditworthy off-takers has limited private investment. Estimates suggest that eliminating the financial losses in these two sectors alone would provide a substantial part of the additional funds needed for infrastructure investment (Devarajan and Harris 2007). Without better pricing, governance, and financial performance, these sectors will have limited ability to mobilize private financing—and will remain heavily dependent on government financial support.

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Notes

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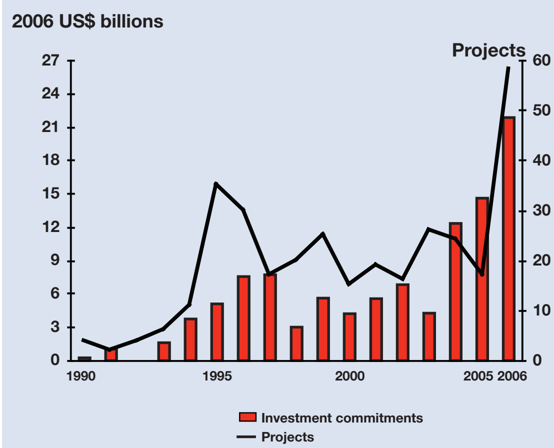
FIGURE 3

Investment in India reached record high

Investment commitments to infrastructure projects with private participation in India



Source: World Bank and PPIAF, PPI Project Database.

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